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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,286

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Bastiaan Johannes De Wit

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BRIARCLIFF MANOR, NY 10510

EXAMINER

DEFRANK, JOSEPH S

ART UNIT

PAPER NUMBER

3724

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,286	<b>Applicant(s)</b> DE WIT ET AL.	
	<b>Examiner</b> JOSEPH DEFRANK	<b>Art Unit</b> 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Examiner Comments***

1. This action is in response to the amendment filed 2/11/08. Claims 1-4 and claims 11-14 are pending.
2. A new abstract has been received and is acceptable.
3. Examiner retracts the previous objection to the oath.

### ***Claim Objections***

4. Claim 13 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claim states "the driving force is substantially parallel to the cutting force" while claim 11 also states "wherein the driving force is substantially perpendicular to the driving surface and the driven surface *and is substantially parallel to the cutting force.*" No new limitation is presented by claim 13.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tietjens (US Patent 4,192,065; as previously cited).

7. With respect to claims 11 and 13, Tietjens discloses a shaving apparatus comprising: an inner cutter (4) having a driven surface (opening where 7 is received) and a cutter (5) for cutting a hair; an outer cutter (2) having an opening (3) for receiving the hair which exerts a cutting force on the inner cutter during cutting of the hair; a coupling member (7) having a driving surface (top of pin drives inner cutter 4); a drive shaft (8) which is configured to directly drive the coupling member so that the driving surface of the coupling member drives the driven surface of the inner cutter with a driving force, wherein the driving force is substantially perpendicular to the driving surface and the driven surface and is substantially parallel to the cutting force.

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tietjens.

Tietjens discloses the driving surface of the coupling member and the driven surface of the inner cutter have mutually corresponding rectangular shapes. Tietjens does not disclose the driving surface and the driven surface having mutually corresponding helical shapes. It would have been an obvious matter of design choice to make the different portions of the driving and driven surfaces of whatever form or shape was desired or expedient. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47. In this case, these two surfaces can have mating shapes of any design as long as they transfer the rotational motion of the

Art Unit: 3724

coupling member (7) to the inner blade (4). The coupling member and blade can have corresponding surfaces of triangular, square, hexagonal, helical, or any other shape that permits this motion transfer. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the shape of the coupling member driving surface and the driven surface of the inner cutter blade to have corresponding helical shapes.

10. Claims 1-4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tietjens in view of Uchiyama et al. (US 5,390,416; as previously cited; hereafter Uchiyama).

11. With respect to claim 1, Tietjens discloses a shaving apparatus with at least one cutting unit, said cutting unit comprising an outer cutter (1) and an inner cutter (4) that can be driven into rotation with respect to the former, said inner cutter being provided with cutting elements (5) with cutting edges, while said outer cutter is provided with hair trap openings (3) bounded by cutting edges (2) for cooperating with the cutting edges of the cutters for the cutting of hairs, wherein during cutting of a hair a cutting force is exerted by the hair on the inner cutter, and a plane through the totality of cutting edges defines a cutting plane (the inner blade is spun to create this force), said shaving apparatus being further provided with a drive device having a drive shaft (8) for driving the inner cutter, which drive device during cutting of a hair exerts a drive force on the inner cutter (rotates the cutter), which force is substantially parallel to the direction of the cutting force, while the drive shaft exerts a pre-stress force in the direction of the outer cutter, characterized in that: the drive device comprises only one coupling member (7)

Art Unit: 3724

that can be driven into rotation and that is provided with at least one driving surface (upper block of 7); the drive shaft is axially supported on the outer cutter by means of the coupling member for directly driving the coupling member into the rotation; and the inner cutter is provided with at least one driven surface (hole where 7 is received) cooperating with the driving surface for exerting the driving force on the cutter, the direction of said driving force being substantially perpendicular to the driving surface and the driven surface.

Tietjens does not disclose the cutting unit being pivotally and resiliently supplied in a casing. Examiner notes that this is old and well known in the art, but the patent to Tietjens just does not disclose said features. Uchiyama et al. discloses a rotary shaver comprising three rotary cutting units (12) supplied in a case (10 in figure 3). The cutting units are movable in the axial direction as well as slightly depressible (column 3 lines 3-10). All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to supply the cutting unit of Tietjen in a casing and in the slightly movable manner as taught by Uchiyama et al.

12. With respect to claim 2, Tietjens discloses the shaver further comprising means for obtaining a small contact pressure between the cutters (represented by spring force 6 in figures 2-4).

13. With respect to claim 3, Tietjens discloses the driving surface of the coupling member and the driven surface of the inner cutter have mutually corresponding rectangular shapes. Tietjens does not disclose the driving surface and the driven surface having mutually corresponding helical shapes. It would have been an obvious matter of design choice to make the different portions of the driving and driven surfaces of whatever form or shape was desired or expedient. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47. In this case, these two surfaces can have mating shapes of any design as long as they transfer the rotational motion of the coupling member (7) to the inner blade (4). The coupling member and blade can have corresponding surfaces of triangular, square, hexagonal, helical, or any other shape that permits this motion transfer. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the shape of the coupling member driving surface and the driven surface of the inner cutter blade to have corresponding helical shapes.

14. With respect to claim 4, Tietjens discloses the shaving apparatus wherein the inner cutter has a carrier for the cutting elements (extending arms and flat rotating shape), the carrier is provided with the driven surfaces (the opening for receiving 7 is in the "carrier" portion), the coupling member (7) is coupled to said carrier, the carrier being movable in the axial direction with respect to the coupling member (the carrier can separate in the axial direction as it is only held in place with a friction fit, see figure 1), while the coupling member can be coupled to the drive shaft and is provided with the

Art Unit: 3724

driving surfaces, and the means for obtaining a small contact pressure between the cutters are present between the carrier and the coupling member (see column 2 lines 35-45; see 6 in figures 2-4).

15. With respect to claim 12, Tietjens discloses the shaver of claim 11, but does not clearly disclose how the coupling member (7) is attached to the drive shaft (8). Thus, Tietjens does not disclose the shaving apparatus wherein the coupling member (7) has a profiled cavity for receiving a coupling head of the drive shaft (8) so that the coupling member is directly driven into rotation by the drive shaft. Examiner notes that it is well known to attach two rotating devices by having a receiving profiled cavity in one part and a head (which is received in the cavity) on the other part.

Uchiyama discloses a drive shaft (15) having a drive head (15a) which is received in a profiled cavity (16d) of a coupling member (16) in order to drive the internal cutting member (14). All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to attach the coupling member (7) and shaft (8) of Tietjens by having the coupling member have a profiled cavity that receives a head of the shaft in view of the teachings of Uchiyama.



***Response to Arguments***

16. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

17. Applicant has argued that as previously presented, the coupling member (11 of the old rejection) does not directly drive the internal cutter head (4) of Tietjens.

Examiner notes that this limitation was not previously presented in the claims and the new rejection meets the limitation.

***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The art of Jorna et al. and the two references of Moskovics et al. are noted as considered pertinent to the applicant's disclosure.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3724

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH DEFRANK whose telephone number is (571)270-3512. The examiner can normally be reached on Monday - Thursday; 9am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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